



**AUTOMATED LOW-THERMAL MATRIX
SCANNER – 40 CHANNEL**

- 2-Wire Inputs
- 2 Amp Capability
- Standard Cell Protection
- Automatic or Manual
- Low Thermal EMF's

MODEL 4240A



MODEL 4240A AUTOMATED LOW-THERMAL MATRIX SCANNER

The model 4240A is ideal for use in automated voltage and thermometry applications where a number of artifacts needed to be calibrated efficiently and accurately. The model 4240A improves efficiency by eliminating the need to continually change connections when measuring multiple voltage sources. The model 4240A features 40 two-terminal inputs and 2 two-terminal outputs.

The inputs can be activated using both front panel key operation or using the IEEE-488 interface. A corresponding LED indicates which channels are selected. Combined with Measurements International's 8000B Automated Potentiometer, the 4240A provides a means to create a completely automated voltage measurement system. In addition, the standard cell protection is provided to prevent selecting more than one channel per output.

Ultra-sensitive, high-efficiency, polarized relay technology is used to eliminate self-heating in the relay in the manufacture of this low-thermal matrix scanner. The relays are high quality devices used in the telecom industry.

The relay boards are thermally isolated to maintain equilibrium in the switching areas.

The low-thermal terminals are mechanically connected to the copper pads on the relay boards to reduce the thermals, normally generated by soldered connections, thus reducing switching errors.

An interconnecting cable may also be ordered with the 4240A Voltage Matrix Scanner.

The interconnecting cable comes in either two or four conductor configurations. The cable may be ordered in lengths with screens already attached. No. 18 gauge solid copper, silver-plated, screened Teflon cable is used.





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Specifications: Rev 1

Number of Inputs	40
Operation	Matrix Scanning
Thermal EMF's	< 50 nanovolts
Error Contribution	< 20 nanovolts
Contact Configuration	Relay – Two-Coil Latching
Max Carrying Current	2 Amps (DC)
Maximum Voltage	250 Volts (DC)
Maximum Switching Voltage	220 Volts (DC)
Contact Resistance	< 0.05 Ohms
Expected Relay Life	10 ⁸ Operations
Insulation Resistance	> 10 ¹² Ohms
Inputs	Tellurium Copper – Rear Panel
Outputs	Tellurium Copper – Rear Panel
Manual/IEEE-488	Both
Operating Environment	18 to 34 °C, 10 to 80 % RH
Warranty	1 Year Parts & Labour

Dimensions (L × W × H):
 380 × 450 × 270 (mm)

Weight:
 15 kg

Shipping Weight:
 20 kg

Main Power:
 100, 120, 220, 240 V – 50/60 Hz

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